

WHAT IS CLAIMED IS:

1. A method for binding cells, comprising contacting said cells with an antibody that binds to a surface structure on said cells, wherein said surface structure is also capable of binding antibody 97A6, which is produced by the hybridoma on deposit as No. DSM ACC 2297, and wherein said cells are selected from the group consisting of basophils, mast cells, precursor cells of basophils, and precursor cells of mast cells.

2. The method of Claim 1, comprising the further step of detecting said cells or surface structures.

3. The method of Claim 1, comprising the further step of isolating said cells or surface structures.

4. The method of Claim 1, comprising the further step of quantifying said cells or surface structures.

5. The method of Claim 1, wherein said antibody is a monoclonal antibody.

6. The method of Claim 1, wherein the antibody essentially does not interact with immunoglobulins of the IgE class.

7. The method of Claim 1, wherein the antibody is antibody 97A6, which is produced by the hybridoma on deposit as No. DSM ACC 2297.

8. A method for the analysis of hematopoiesis, comprising a method as in Claim 1.

9. The method of Claim 1, further comprising the step of determining the extent to which basophils are activated.

10. The method of Claim 2, wherein the antibody is joined to a marker.

11. The method of Claim 10, wherein the antibody is joined to a fluorescent marker.

12. The method of Claim 2, wherein detection of bound antibodies is accomplished by way of usual immunological detection methods.

13. The method of Claim 2, comprising the step of detecting activated basophils.

14. The method of Claim 13, further comprising the step of determining the extent to which basophils are activated.

15. A method for analyzing a patient sample comprising cells with a surface structure, comprising contacting said patient sample with an antibody capable of binding to the surface structure of said cells, wherein said surface structure is also capable of binding to antibody 97A6, which is produced by the hybridoma on deposit as No. DSM ACC 2297, and wherein the patient

sample is selected from the group consisting of tissue biopsies, bone marrow biopsies and blood samples.

16. A method for the diagnostic classification of a tumor, comprising providing a sample of said tumor, which comprises cells having a surface structure, and contacting said surface structure with an antibody capable of binding said surface structure, wherein said surface structure is also capable of binding to antibody 97A6, which is produced by the hybridoma on deposit as No. DSM ACC 2297.

17. The method of Claim 16, wherein the tumor is leukemia.

18. A method for investigating allergies, comprising pre-incubating a blood sample comprising cells with an agent that is suspected of triggering an allergic reaction; incubating said pre-incubated blood sample with an antibody capable of binding to a surface structure of said cells, wherein said surface structure is also capable of binding to antibody 97A6, which is produced by the hybridoma on deposit as No. DSM ACC 2297; and quantifying antibodies bound to cells in said blood sample.

19. A method of providing hematopoietic precursor cells that can differentiate into mast cells or basophils, comprising: providing bone marrow cells having a surface structure from an organism; incubating said bone marrow cells with an antibody capable of binding to said surface structure, wherein said surface structure is also capable of binding to antibody 97A6, which is produced by the hybridoma on deposit as No. DSM ACC 2297; and isolating antibody-bound cells from the incubated bone marrow cells.

20. A substantially pure population of cells, wherein said cells are capable of being bound by a reagent that binds specifically to a surface structure on said cells, wherein said surface structure is also capable of binding to antibody 97A6, which is produced by the hybridoma on deposit as No. DSM ACC 2297; and wherein said cells are selected from the group consisting of basophils, mast cells, precursor cells of basophils, and precursor cells of mast cells.

21. A reagent for binding cells, comprising an antibody capable of binding to a surface structure of said cells, wherein said surface structure is also capable of binding to the antibody 97A6, and wherein said cells are selected from the group consisting of basophils, mast cells, precursor cells of basophils, and precursor cells of mast cells.